

**REMARKS/ARGUMENTS**

Reconsideration and withdrawal of the outstanding grounds of rejection is respectfully requested in light of the above amendments and the remarks that follow.

The Examiner has rejected claims 1, 4-16 and 18-25 under 35 U.S.C. § 103 as unpatentable over U.S. Patent 6,355,932 (Frederick) in view of U.S. Published Application 2002/0030400 (Frederick et al.) or U.S. Patent 6,369,391 (Hefetz et al.) In rejecting the claims, the Examiner considers components 22 of Frederick '932 as the claimed elongated rails. Components 22 are in fact elongated radial springs that establish radially compressive forces between the photo multiplier and the detector housing. They are preferably made of steel or titanium and may be coated or lubricated with, for example, polytetrafluoroethylene. The springs are located at circumferentially spaced locations about the scintillator 14, but there is no indication that they extend along the corners of a rectangular crystal.

In contrast, the present invention relates to the utilization of corner rails extending along the corners of a rectangular crystal. To further highlight the distinction, applicants have amended independent claim 1 to require that the rails each include neutral perpendicular side surfaces that extend along respective ones of the longitudinally extending corners on the crystal as best seen in Figure 4 of the instant application. Independent claim 16 has been amended in a similar manner. Absent any disclosure or remote suggestion in Frederick '932, with or without further consideration of the Frederick et al. '400 publication or Hefetz et al. '391, the Section 103 rejection as applied to claim 1, claims 4-16 and 18-25 should now be withdrawn.

The Examiner has rejected claims 2, 3 and 17 under 35 U.S.C. § 103 as unpatentable over Frederick '932 in view of U.S. Patent 5,962,855 (Frederick et al.) and further in view of Frederick '400 or the Hefetz '391 patent. Since claims 2 and 3 depend from claim 1, and since

claim 17 depends from claim 16, it is respectfully submitted that the rejection should be withdrawn for the reasons presented above. Further in this regard, the Frederick '855 patent added to this ground of rejection also fails to disclose or suggest the rail construction required by independent claims 1 and 16.

The Examiner has rejected claim 26 under 35 U.S.C. § 103 over Frederick '932 in view of Frederick '855, Frederick '400 or Hefetz '391.

Claim 26 has been amended to require a plurality of plastic rails with inward facing, mutually perpendicular surfaces extending along the corners of the crystal, creating a gap between the crystal and the housing and lined with foam shock absorbing material.

While Frederick '932 suggests that all elements of the detector assembly are either cylindrical or rectangular (thus perhaps including a rectangular crystal having four longitudinally extending corners), Frederick '932 does not disclose or suggest that the springs 22 would extend along the corners of the crystal. To the contrary, it would appear that the elongated springs 22 of Frederick '932 in the case of a rectangular crystal, would be located in spaced positions about the flat side walls of the crystal as opposed to along the corners. In addition, none of the references disclose or suggest the use of corner rails having inward facing sides that are lined with foamed shock absorbing material. Accordingly, claim 26 as amended patentably defines over the references as cited and applied by the Examiner.

The Examiner has also rejected claims 27 and 28 under 35 U.S.C. § 103 over Frederick '400. The Examiner acknowledges that the reference fails to disclose or suggest a light pipe having a rectangular face for engaging a similarly shaped face on a scintillation crystal, and a square face for engaging a similarly shaped face on a photo multiplier tube. Nevertheless, the

Examiner contends that the claimed subject matter would have been an obvious matter of design choice.

Claim 27 as amended also requires that the rectangular face for engaging the scintillation crystal be relatively smaller than the square face for engaging the photomultiplier tube. This particular arrangement as discussed in the paragraph bridging pages 8 and 9 of the specification maximizes light transfer.

Absent any factual evidence to the contrary, it is improper for the Examiner to simply conclude obvious matter of design choice with respect to the claimed subject matter, disclosed as having a particular benefit. Dependent claim 28 has been canceled, the subject matter thereof having been incorporated into claim 27.

The application is now believed to be in condition for allowance and early passage to issue is requested. In the event any small matters remain outstanding, the Examiner is encouraged to telephone the undersigned so that the prosecution of this application can be expeditiously concluded.

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By:



Michael J. Keenan  
Reg. No. 32,106

MJK:rrl  
901 North Glebe Road, 11th Floor  
Arlington, VA 22203-1808  
Telephone: (703) 816-4000  
Facsimile: (703) 816-4100